

SUMMARY OF GALLATIN RIVER OUTSTANDING RESOURCE WATER (ORW) DESIGNATION

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Water Pollution Control Advisory Council
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Presented by:
Eric Regensburger
DEQ, Water Protection Bureau
444-0916
eregensburger@mt.gov

Discussion Topics

- **ORW LOCATION**
- **ORW RESTRICTIONS**
- **AFFECTED ACTIVITIES**
- **DRAFT EIS & ALTERNATIVES**
- **IMPLEMENTATION OF ORW DESIGNATION**
- **POTENTIAL IMPACTS ON DEVELOPMENT
DUE TO ORW DESIGNATION**

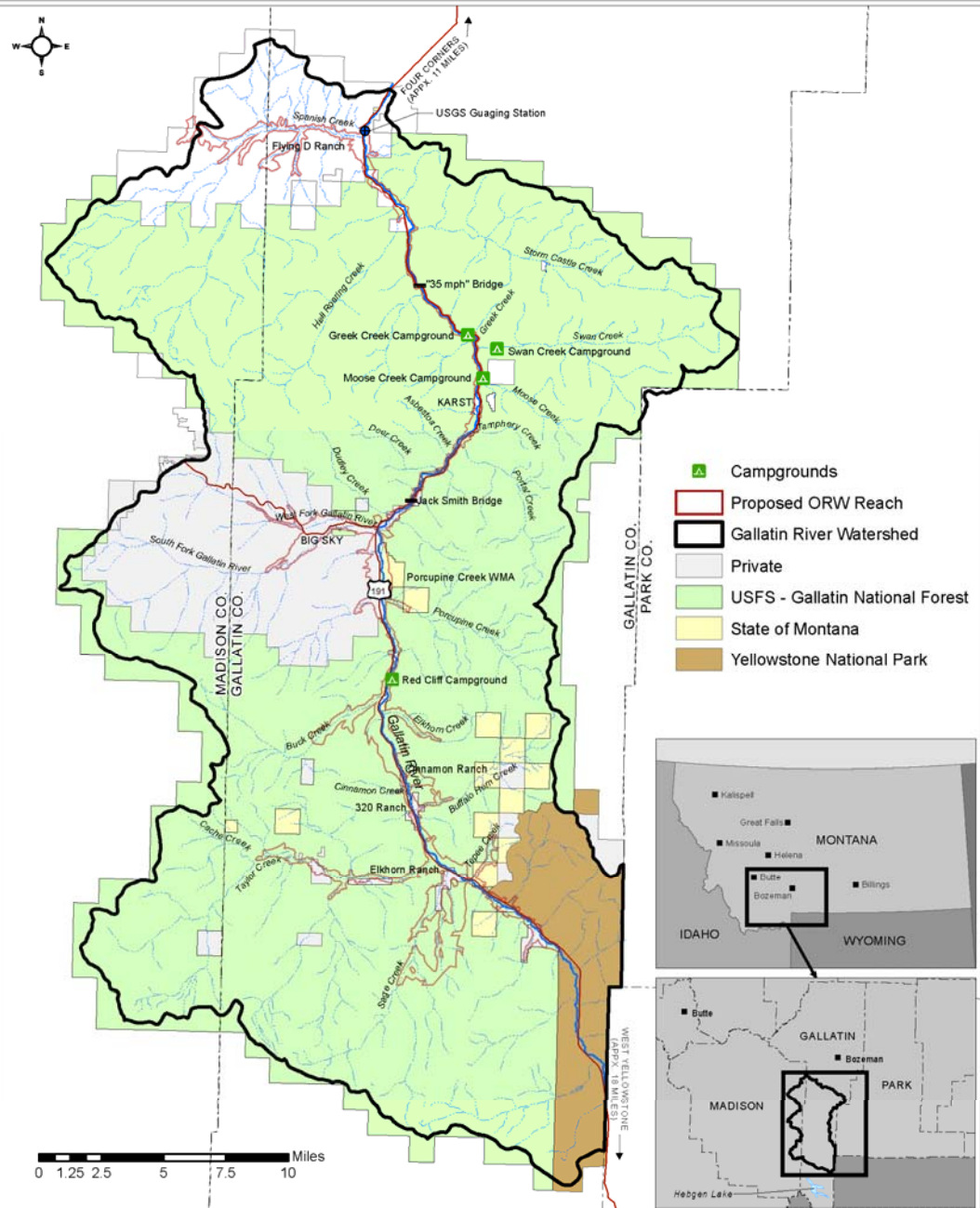


FIGURE 1

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STUDY AREA
GALLATIN RIVER ORW EIS

ORW Restrictions

- **REQUIREMENTS LISTED IN THE WATER QUALITY ACT**
 - Cannot allow “...new or increased point source discharge that would result in a permanent [measurable] change in the water quality of an ORW”
 - Source has to meet all 3 criteria to be impacted by ORW designation
- **HIGHER LEVEL OF PROTECTION THAN UNDER NONDEGRADATION RULES**
 - No authorizations to degrade
 - No “narrative” nonsignificant determinations

Affected Activities

1. NEW OR INCREASED SOURCES

- **Discharges that aren't existing, or haven't been approved, authorized, licensed or permitted by DEQ by the effective date of designation**
- **Examples:**
 - **NEW PROPOSED DISCHARGE** (new subdivision; lifting sanitary restrictions)
 - **EXPANSION OF EXISTING DISCHARGES** (increase of Big Sky Sewer permitted discharge load; expansion of a business such as a hotel)
- **Not Included:**
 - **REPLACEMENT WASTEWATER SYSTEM IN A NEARBY LOCATION**

Affected Activities

2. POINT SOURCE

- Direct discharges to Gallatin River (or to tributaries when the discharge will create permanent change in the Gallatin)
- Ground water discharges with a direct hydrologic connection to surface water
- Examples:
 - SINGLE-FAMILY SEPTIC SYSTEM WITH A DIRECT HYDROLOGIC CONNECTION TO GALLATIN RIVER
 - DISCHARGE PIPE FROM BIG SKY SEWER DIST.
- Not Included:
 - LOGGING STORMWATER RUNOFF
 - ROAD CONSTRUCTION STORMWATER RUNOFF
 - RECREATIONAL ACTIVITIES (fishing; rafting ...)

Affected Activities

2. POINT SOURCE (...continued)

- **Direct Hydrologic Connection**
 - **BASED ON SITE HYDROGEOLOGY**
 - **POLLUTANT TRAVEL TIME TO RIVER IS BIGGEST FACTOR**
 - **AQUIFER CHARACTERISTICS**
 - **HYDRAULIC GRADIENT,**
 - **HYDRAULIC CONDUCTIVITY,**
 - **DEPTH TO GROUND WATER,**
 - **FRACTURES**
 - **TIME OF TRAVEL DOESN'T PROVIDE ENOUGH TIME FOR ADEQUATE TREATMENT**
 - **AREAS OF DIRECT HYDROLOGIC CONNECTION IS TERMED THE “FOOTPRINT” IN DEIS**

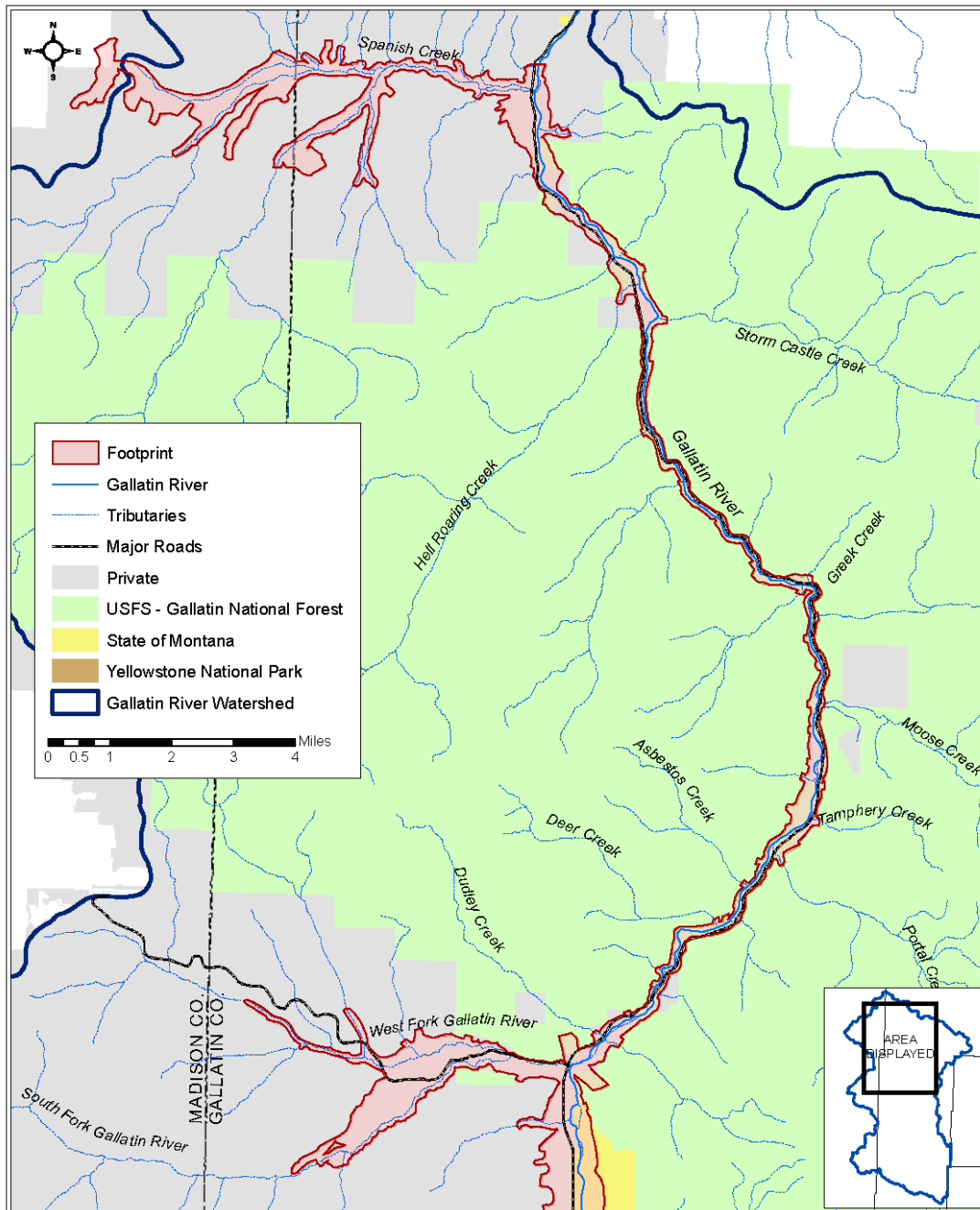


FIGURE 2-2

**FOOTPRINT OF ZONE OF HYDROLOGIC CONNECTIVITY
OF GALLATIN RIVER (NORTH HALF)
GALLATIN RIVER ORW EIS**

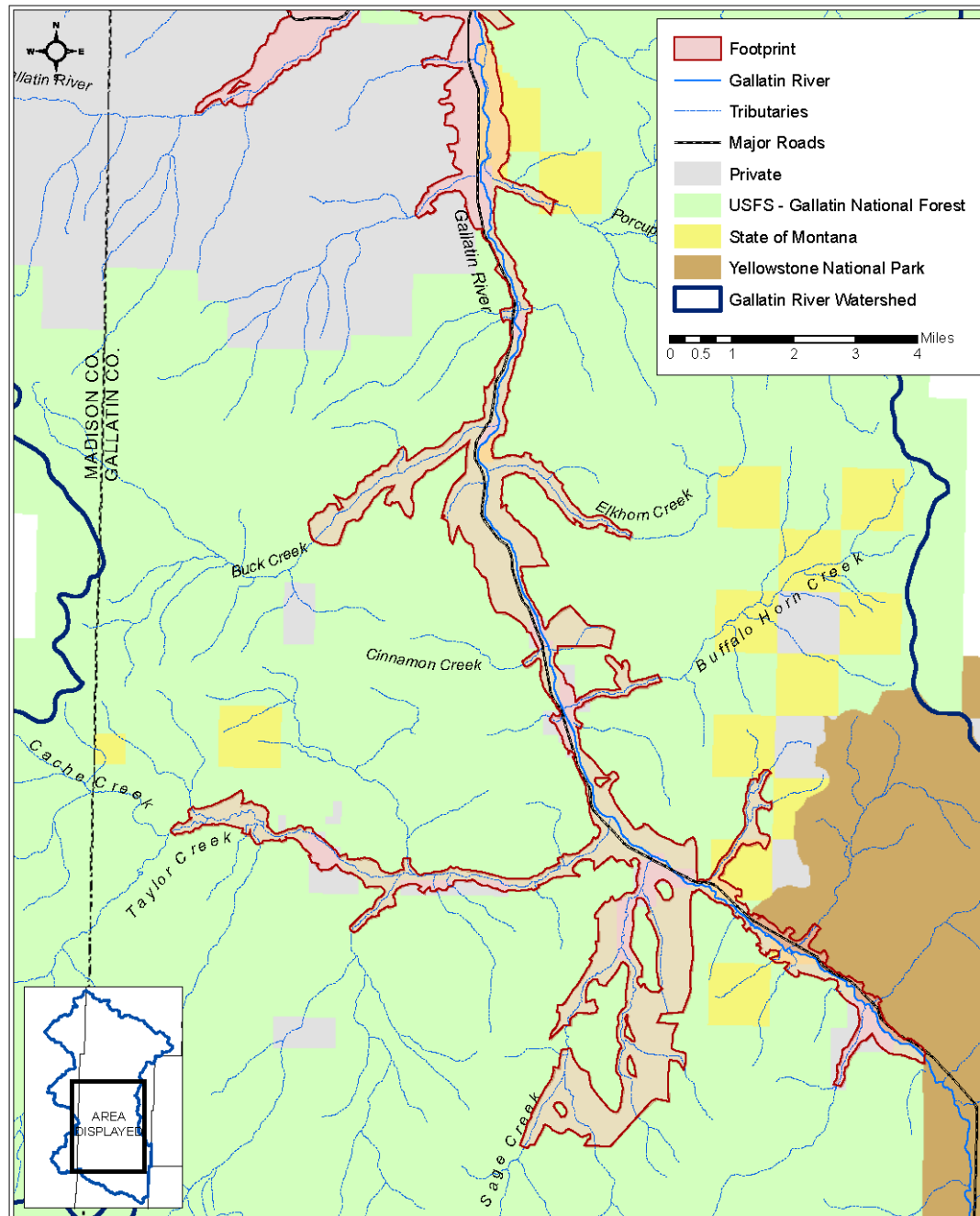


FIGURE 2-2 (continued)

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**FOOTPRINT OF ZONE OF HYDROLOGIC CONNECTIVITY
OF GALLATIN RIVER (SOUTH HALF)
GALLATIN RIVER ORW EIS**

Affected Activities

3. PERMANENT SOURCES

- Permanent [& measurable]
- Use DEQ-7 trigger values as guide to “measurable” change
- Examples:
 - SINGLE-FAMILY SEPTIC SYSTEM
 - COMMUNITY SEPTIC SYSTEM
 - MANY INDUSTRIAL DISCHARGES
- Not Included:
 - SHORT TERM AUTHORIZATIONS
(CONSTRUCTION STORMWATER, SUCTION DREDGE, 318 TURBIDITY)

Draft EIS & Alternatives

- **3 ALTERNATIVES IN DEIS**
 - **No Action (no ORW designation)**
 - **Proposed Action (designate ORW)**
 - **Cumulative Impacts (incorporate some elements of ORW designation into future nondegradation reviews using existing rule authority)**
- **PREFERRED ALTERNATIVE NOT IDENTIFIED**

No Action Alternative

- **BER DOES NOT RECOMMEND ORW DESIGNATION**
 - Current nondegradation review process continues
 - Each development reviewed separately with respect to trigger value impacts to surface water
 - DEQ could incorporate use of the footprint identified in DEIS for determining when surface water impact reviews are required
 - Each development reviewed cumulatively with surrounding sources with respect to ground water impacts

Proposed Action Alternative

- **BER INITIATES ORW DESIGNATION RULE-MAKING**
 - Must still be approved by legislature ...
 - DEQ reviews new discharges inside footprint and directly to Gallatin River cumulatively to maintain no permanent change in surface water quality (trigger value for nutrients)
 - No authorizations to degrade
 - No narrative standard review

Cumulative Impacts Alternative

- **BER RECOMMENDS NON-ORW ALTERNATIVE**
 - Future nondegradation reviews use footprint defined in DEIS to review cumulative effects of new discharges to maintain no permanent change in surface water quality (trigger value for nutrients)
 - Authorizations to degrade allowed
 - Narrative standard reviews allowed

ORW Implementation

- **DEQ MAINTAINS TRACK OF ALL NEW APPROVALS**
- **WHEN TRIGGER VALUE EXCEEDED NO MORE DISCHARGES INSIDE FOOTPRINT OR DIRECTLY TO RIVER**
 - Trigger value exceedence based on calculations, not in-stream measurements
 - Under Current Zoning, 652 single family equivalents (SFE) allowed within the footprint
 - Using conventional or level 2 septic systems, 119 septic systems allowed within the footprint (phosphorus is controlling nutrient)

Potential Impacts on Development Due to ORW Designation

- Reduce number of SFEs within footprint – allow only ~100 SFEs
- Encourage alternative wastewater treatment and disposal inside footprint – allow >100 SFEs
- Encourage development of new regional wastewater system(s) with disposal not regulated by ORW designation – allow up to all 652 SFEs
- Encourage hookup to existing wastewater treatment system with disposal not regulated by ORW designation – allow up to all 652 SFEs

Potential Impacts on Development Due to ORW Designation (cont...)

- Lots inside footprint without existing systems or previous state approval (including sanitary restriction lots) may not be able to get septic system on lot
- “Mad Rush” for those first ~100 SFEs
- If regional wastewater system developed, zoning could be changed (??) to allow >652 SFEs inside the footprint

Summary of Regulatory Changes

ACTIVITY	GALLATIN Current	GALLATIN ORW	TRIBS Current	TRIBS ORW
MPDES (surface water discharge)	Nonsig. change allowed. Authorization to degrade allowed	Nonsig change allowed until T.V. reached. Then no new/increased permanent point sources. No auth. to degrade.	Nonsig. change allowed. Authorization to degrade allowed	Nonsig change allowed until T.V. reached. Then no new/inc. perm. point sources that cause meas. change in Gallatin Authorization to degrade allowed
Groundwater Discharge (inside footprint)	Nonsig. change allowed. Authorization to degrade allowed	Nonsig change allowed until T.V. reached. Then no new/increased permanent point sources. No auth. to degrade.	Nonsig. change allowed. Authorization to degrade allowed	Nonsig change allowed until T.V. reached. Then no new/inc. perm. point sources that cause meas. change in Gallatin Authorization to degrade allowed
Groundwater Discharge (outside footprint)	Nonsig. change allowed. Auth to degrade g.w. allowed	Nonsig. change allowed. Auth to degrade g.w. allowed	Nonsig. change allowed. Auth to degrade allowed	Nonsig. change allowed. Auth to degrade allowed

QUESTIONS ?